## Semester Project

## *CS-627: Cryptology Fall 2004*

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For the semester project, you will produce a report on one of the following encryption algorithms (See, for example, <u>http://www.tropsoft.com/aboutenc.htm</u> and <u>http://en.wikipedia.org/wiki/Data Encryption Standard</u>):

- 1. Twofish\*\*: See http://www.schneier.com/twofish.html
- 2. MARS\*\*
- 3. Serpent\*\*: See http://www.cl.cam.ac.uk/~rja14/serpent.html
- 4. Skipjack
- 5. IDEA
- 6. NewDES
- 7. SAFER
- 8. FEAL
- 9. RC6\*\*
- 10. CAST-256
- 11. CRYPTON
- 12. DEAL
- 13. DFC
- 14. E2; See http://info.isl.ntt.co.jp/e2/
- 15. FROG; See http://www.tecapro.com/aesfrog.html
- 16. Hasty Pudding Cipher (HPC): See http://www.cs.arizona.edu/~rcs/hpc/
- 17. LOK197: See http://www.unsw.adfa.edu.au/~lpb/research/loki97/
- 18. MAGENTA
- 19. MARS: See http://www.research.ibm.com/security/mars.html

20. Testing of AES Candidates (Round 1): <u>http://csrc.nist.gov/CryptoToolkit/aes/</u>

\*\* indicates algorithm was considered in the final competition for AES.

Please coordinate with each other, so that everyone takes a different algorithm.

Paper not to exceed 10 pages including figures. Presentation not to exceed 30 minutes.

Pick and choose what is important or special about your algorithm.